STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form: /

Application Serial Number: _10/828,623A_
Source: _1FWO_
Date Processed by STIC: _6/14/05_

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY
FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT
MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO **REDUCE** ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 4.2.2 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:
        http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (**<http://www.uspto.gov/ebc/efs/downloads/documents.htm>** , **EFS Submission User Manual** - ePAVE)
2. **U.S. Postal Service:** Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. **Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):**
   U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: *10/828,623A*

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 ____ Wrapped Nucleics The number/text at the end of each line "wrapped" down to the next line. This may occur if your file
Wrapped Aminos was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will
prevent "wrapping."

·2 ____ Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 ____ Misaligned Amino The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers;
Numbering use space characters, instead.

4 ____ Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please
ensure your subsequent submission is saved in ASCII text.

5 ____ Variable Length Sequence(s) ____ contain n's or Xaa's representing more than one residue. Per Sequence Rules,
each n or Xaa can only represent a single residue. Please present the maximum number of each
residue having variable length and indicate in the <220>-<223> section that some may be missing.

6 ____ PatentIn 2.0 A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid
"bug" sequences(s) _____. Normally, PatentIn would automatically generate this section from the
previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to
the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for
Artificial or Unknown sequences.

7 ____ Skipped Sequences Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence:
(OLD RULES) (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i)   SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8 ____ Skipped Sequences Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence.
(NEW RULES) <210> sequence id number
<400> sequence id number
000

9 ____ Use of n's or Xaa's Use of n's and/or Xaa's have been detected in the Sequence Listing.
(NEW RULES) Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10 ____ Invalid <213> Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or
Response scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or
is Artificial Sequence

11 ____ Use of <220> Sequence(s) ____ missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or
"Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

12 ____ PatentIn 2.0 Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file,
"bug" resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence
listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 ____ Misuse of n/Xaa "n" can only represent a single <u>nucleotide</u>; "Xaa" can only represent a single <u>amino acid</u>

IFWO

RAW SEQUENCE LISTING   DATE: 06/14/2005
PATENT APPLICATION: US/10/828,623A   TIME: 14:17:49

Input Set : A:\New England-0008.ST25.txt
Output Set: N:\CRF4\06142005\J828623A.raw

```
 3 <110> APPLICANT: Carr, Daniel
 4       Lipkowski, Andrzej
 5       Kream, Richard
 6       Misicka-Kesik, Aleksandra
 8 <120> TITLE OF INVENTION: Novel Chimeric Analgesic Peptides
10 <130> FILE REFERENCE: 2004117-0008
12 <140> CURRENT APPLICATION NUMBER: 10/828,623A
13 <141> CURRENT FILING DATE: 2004-04-21
15 <160> NUMBER OF SEQ ID NOS: 43
17 <170> SOFTWARE: PatentIn version 3.2
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 15
21 <212> TYPE: PRT
22 <213> ORGANISM: Artificial
24 <220> FEATURE:
25 <223> OTHER INFORMATION: e-endorphin
27 <400> SEQUENCE: 1
29 Thr Gly Gly Phe Met Thr Ser Glu Ser Gln Thr Pro Leu Val Thr
30 1               5                   10                  15
33 <210> SEQ ID NO: 2
34 <211> LENGTH: 4
35 <212> TYPE: PRT
36 <213> ORGANISM: Artificial
38 <220> FEATURE:
39 <223> OTHER INFORMATION: endomorphin-1
41 <400> SEQUENCE: 2
43 Tyr Pro Trp Phe
44 1
47 <210> SEQ ID NO: 3
48 <211> LENGTH: 4
49 <212> TYPE: PRT
50 <213> ORGANISM: Artificial
52 <220> FEATURE:
53 <223> OTHER INFORMATION: endomorphin-2
55 <400> SEQUENCE: 3
57 Tyr Pro Phe Phe
58 1
61 <210> SEQ ID NO: 4
62 <211> LENGTH: 7
63 <212> TYPE: PRT
64 <213> ORGANISM: Artificial
66 <220> FEATURE:
67 <223> OTHER INFORMATION: dermorphin
```

[Handwritten annotations:]

Previously annotated submission included an Error Summary sheet which indicated that the <223> explanation for Artificial Sequence needed to indicate source of genetic material

What is the source of genetic material?

Does Not Comply — Corrected Diskette Needed.

P.P.15

same error

(Error Summary sheet is included in this annotated raw sequence listing, too)

```
 69 <400> SEQUENCE: 4
 71 Tyr Ala Phe Gly Tyr Pro Ser
 72 1               5
 75 <210> SEQ ID NO: 5
 76 <211> LENGTH: 7
 77 <212> TYPE: PRT
 78 <213> ORGANISM: Artificial
 80 <220> FEATURE:
 81 <223> OTHER INFORMATION: b-casomorphin (bovine)
 83 <400> SEQUENCE: 5
 85 Tyr Pro Phe Pro Gly Pro Ile
 86 1               5
 89 <210> SEQ ID NO: 6
 90 <211> LENGTH: 7
 91 <212> TYPE: PRT
 92 <213> ORGANISM: Artificial
 94 <220> FEATURE:
 95 <223> OTHER INFORMATION: b-casomorphin (human)
 97 <400> SEQUENCE: 6
 99 Tyr Pro Phe Val Glu Pro Ile
100 1               5
103 <210> SEQ ID NO: 7
104 <211> LENGTH: 4
105 <212> TYPE: PRT
106 <213> ORGANISM: Artificial
108 <220> FEATURE:
109 <223> OTHER INFORMATION: morphiceptin
111 <400> SEQUENCE: 7
113 Tyr Pro Phe Pro
114 1
117 <210> SEQ ID NO: 8
118 <211> LENGTH: 5
119 <212> TYPE: PRT
120 <213> ORGANISM: Artificial
122 <220> FEATURE:
123 <223> OTHER INFORMATION: leu-enkephalin
125 <400> SEQUENCE: 8
127 Tyr Gly Gly Phe Leu
128 1               5
131 <210> SEQ ID NO: 9
132 <211> LENGTH: 5
133 <212> TYPE: PRT
134 <213> ORGANISM: Artificial
136 <220> FEATURE:
137 <223> OTHER INFORMATION: met-enkephalin
139 <400> SEQUENCE: 9
141 Tyr Gly Gly Phe Met
142 1               5
145 <210> SEQ ID NO: 10
```

OK, source is indicated

OK

```
146 <211> LENGTH: 4
147 <212> TYPE: PRT
148 <213> ORGANISM: Artificial
150 <220> FEATURE:
151 <223> OTHER INFORMATION: dalda
153 <400> SEQUENCE: 10
155 Tyr Arg Phe Lys
156 1
159 <210> SEQ ID NO: 11
160 <211> LENGTH: 4
161 <212> TYPE: PRT
162 <213> ORGANISM: Artificial
164 <220> FEATURE:
165 <223> OTHER INFORMATION: PL017
167 <400> SEQUENCE: 11
169 Tyr Pro Phe Pro
170 1
173 <210> SEQ ID NO: 12
174 <211> LENGTH: 5
175 <212> TYPE: PRT
176 <213> ORGANISM: Artificial
178 <220> FEATURE:
179 <223> OTHER INFORMATION: Dadle
181 <400> SEQUENCE: 12
183 Tyr Ala Gly Phe Leu
184 1               5
187 <210> SEQ ID NO: 13
188 <211> LENGTH: 6
189 <212> TYPE: PRT
190 <213> ORGANISM: Artificial
192 <220> FEATURE:
193 <223> OTHER INFORMATION: Dslet
195 <400> SEQUENCE: 13
197 Tyr Ser Gly Phe Leu Thr
198 1               5
201 <210> SEQ ID NO: 14
202 <211> LENGTH: 5
203 <212> TYPE: PRT
204 <213> ORGANISM: Artificial
206 <220> FEATURE:
207 <223> OTHER INFORMATION: X = pen is penicillamine, or 3-mercapto-(D) Valine
210 <220> FEATURE:
211 <221> NAME/KEY: misc_feature
212 <222> LOCATION: (2)..(2)
213 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
215 <220> FEATURE:
216 <221> NAME/KEY: misc_feature
217 <222> LOCATION: (5)..(5)
218 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
```

This is not explained in <220>-<223> section.
The Error Summary sheet in previously annotated
submission indicated that "Artificial Sequence or
"Unknown"
in
<213> response
needed
explanation
in <220>-<223>
section.

```
220 <400> SEQUENCE: 14
222 Tyr Xaa Gly Phe Xaa
223 1               5
226 <210> SEQ ID NO: 15
227 <211> LENGTH: 7
228 <212> TYPE: PRT
229 <213> ORGANISM: Artificial
231 <220> FEATURE:
232 <223> OTHER INFORMATION: deltorphin I
234 <400> SEQUENCE: 15
236 Tyr Ala Phe Asp Val Val Gly
237 1               5
240 <210> SEQ ID NO: 16
241 <211> LENGTH: 7
242 <212> TYPE: PRT
243 <213> ORGANISM: Artificial
245 <220> FEATURE:
246 <223> OTHER INFORMATION: deltorphin II
248 <400> SEQUENCE: 16
250 Tyr Ala Phe Glu Val Val Gly
251 1               5
254 <210> SEQ ID NO: 17
255 <211> LENGTH: 7
256 <212> TYPE: PRT
257 <213> ORGANISM: Artificial
259 <220> FEATURE:
260 <223> OTHER INFORMATION: dermenkephalin
262 <400> SEQUENCE: 17
264 Tyr Met Phe His Leu Met Asp
265 1               5
268 <210> SEQ ID NO: 18
269 <211> LENGTH: 16
270 <212> TYPE: PRT
271 <213> ORGANISM: Artificial
273 <220> FEATURE:
274 <223> OTHER INFORMATION: dynorphin A
276 <400> SEQUENCE: 18
278 Tyr Gly Gly Phe Leu Arg Arg Ile Arg Pro Lys Leu Lys Trp Asp Asn
279 1               5                   10                  15
282 <210> SEQ ID NO: 19
283 <211> LENGTH: 8
284 <212> TYPE: PRT
285 <213> ORGANISM: Artificial
287 <220> FEATURE:
288 <223> OTHER INFORMATION: Dyn (1-8)
290 <400> SEQUENCE: 19
292 Tyr Gly Gly Phe Leu Arg Arg Ile
293 1               5
296 <210> SEQ ID NO: 20
```

```
297 <211> LENGTH: 13
298 <212> TYPE: PRT
299 <213> ORGANISM: Artificial
301 <220> FEATURE:
302 <223> OTHER INFORMATION: Dyn (1-13)
304 <400> SEQUENCE: 20
306 Tyr Gly Gly Phe Leu Arg Arg Ile Arg Pro Lys Leu Lys
307 1               5                  10
310 <210> SEQ ID NO: 21
311 <211> LENGTH: 11
312 <212> TYPE: PRT
313 <213> ORGANISM: Artificial
315 <220> FEATURE:
316 <223> OTHER INFORMATION: SP
318 <400> SEQUENCE: 21
320 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met
321 1               5                  10
324 <210> SEQ ID NO: 22
325 <211> LENGTH: 12
326 <212> TYPE: PRT
327 <213> ORGANISM: Artificial
329 <220> FEATURE:
330 <223> OTHER INFORMATION: SP-glycine
332 <400> SEQUENCE: 22
334 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly
335 1               5                  10
338 <210> SEQ ID NO: 23
339 <211> LENGTH: 13
340 <212> TYPE: PRT
341 <213> ORGANISM: Artificial
343 <220> FEATURE:
344 <223> OTHER INFORMATION: SP-Glycine-Lysine
346 <400> SEQUENCE: 23
348 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly Lys
349 1               5                  10
352 <210> SEQ ID NO: 24
353 <211> LENGTH: 14
354 <212> TYPE: PRT
355 <213> ORGANISM: Artificial
357 <220> FEATURE:
358 <223> OTHER INFORMATION: SP-Glycine-Lysine-Arginine
360 <400> SEQUENCE: 24
362 Ala Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly Lys Arg
363 1               5                  10
366 <210> SEQ ID NO: 25
367 <211> LENGTH: 12
368 <212> TYPE: PRT
369 <213> ORGANISM: Artificial
371 <220> FEATURE:
```

↓ IMPORTANT

The types of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:14; Xaa Pos. 2,5

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27
Seq#:28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43

VERIFICATION SUMMARY   DATE: 06/14/2005
PATENT APPLICATION: **US/10/828,623A**   TIME: 14:17:50

Input Set : **A:\New England-0008.ST25.txt**
Output Set: **N:\CRF4\06142005\J828623A.raw**

L:222 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0